

Contents

Stellar Structure and Evolution

(LE) Discovery of an S star in the Fornax dwarf elliptical galaxy <i>Westerlund, B.E.</i>	55
Determination of the time scale of the magnetic moment decay in pulsars <i>Nowakowski, L.A.</i>	29
The short-term spectral variability of the T Tauri star RW Aur <i>Appenzeller, I., Östreich, R., Schiffer, J.G., Egge, K.E., Petersen, B.R.</i>	75
VW Hydri revisited: conclusions on dwarf nova outburst models <i>Vogt, N.</i>	95
Supplementary information for some γ -ray bursts by SAS-2 anticoincidence dome data <i>Özel, M.E., Kizilöglü, Ü., Tokdemir, F.</i>	114
Resonance effects in radial pulsators <i>Buchler, J.R.</i>	163
(RN) On the nature of the (intermittent?) emission line star LkH ₃₂₄ <i>Chavarria-K., C., Finkenzeller, U., Appenzeller, I., de Lara, E., Cardona, O.</i>	189
Spectroscopic observations of eclipsing binaries. V. Accurate mass determination for the B-type systems V539 Arae and ζ Phoenicis <i>Andersen, J.</i>	255
Evolution of a Population III star of low mass <i>Guenther, D.B., Demarque, P.</i>	262
On the stability of toroidal flux tubes in differentially rotating stars <i>van Ballegooijen, A.A.</i>	275
Evolution of very low-mass stars <i>van der Linden, T., Staller, R.</i>	285
VBLUW photometry of the magnetic Ap stars HD 137949 (33 Lib), HD 201601 (γ Equ), HD 203006 (θ Mic) and the peculiar shell star HD 190073 <i>Deul, E.R., van Genderen, A.M.</i>	289
A spectrographic study of the β Cephei star 16 Lacertae <i>Le Contel, J.-M., Ducatel, D., Jarzebowski, T., Jerzykiewicz, M., Valtier, J.-C.</i>	294
Near infrared spectroscopy and infrared photometry of a new WC9 star <i>Danks, A.C., Dennefeld, M., Wamsteker, W., Shaver, P.A.</i>	301
The double-mode Cepheid CO Aur <i>Mantegazza, L.</i>	321
EX Hydrae: a coordinated campaign of photoelectric photometry from four observatories <i>Sterken, C., Vogt, N., Freeth, R., Kennedy, H.D., Marino, B.F., Page, A.A., Walker, W.S.G.</i>	325
On the stellar content of the galactic globular cluster M5 <i>Altamore, A., Angeletti, L., Capuzzo-Dolcetta, R., Giannone, P.</i>	332
(RN) Search for light variability of LSI+61°303 <i>Bartolini, C., Custodi, P., Dell'atti, F., Guarneri, A., Piccioni, A.</i>	365
Stellar Atmospheres	
(LE) GX339-4: X-ray spectra of high and low states <i>Ricketts, M.J.</i>	33
Spectral fine analysis of the extreme helium star BD +10°2179 <i>Heber, U.</i>	39
Non-LTE analysis of massive O-stars. II. The O4 star ζ Puppis <i>Kudritzki, R.P., Simon, K.P., Hamann, W.-R.</i>	245
A numerical study of the nonlinear Rayleigh-Taylor instability, with application to accreting X-ray sources <i>Wang, Y.-M., Nepveu, M.</i>	267
Spectrophotometry of peculiar B and A stars. XV. α Andromedae, AR Aurigae, 36 Aurigae, 36 Lyncis, ϕ Herculis, HR 6127, and HR 6997 <i>Adelman, S.J., Pyper, D.M.</i>	313
Galactic Structure, Stellar Dynamics	
Kinematical studies of open clusters and OB-associations from relative radial velocity observations. II. The Orion Belt region <i>Giesecking, F.</i>	102
(RN) The z-distribution of Am stars <i>Ochsenbein, F.</i>	197
An analytic solution for stellar space densities <i>Reed, B.C.</i>	229
(RN) A virial mass determination of the open cluster NGC 6494 <i>McNamara, B.J., Sanders, W.L.</i>	361
Interstellar Matter	
Pressure distribution at the inner boundary of an astropause caused by a compressible stellar wind <i>Fahr, H.J., Neutsch, W.</i>	57

The O_{III}/O_{II} problem in medium and high excitation planetary nebulae	
<i>Che, A., Köppen, J.</i>	107
Optical observations of the LMC H_{II} region N 11	
<i>Heydari-Malayeri, M., Testor, G.</i>	116
Aperture synthesis observations of the 21 cm Zeeman effect	
<i>Bregman, J.D., Troland, T.H., Forster, J.R., Schwarz, U.J., Goss, W.M., Heiles, C.</i>	157
(RN) Emission-line spectra of H_{II} regions: dependence on metal abundances in the atmosphere of the ionizing star and in the nebular gas	
<i>Köppen, J., Schmid-Burgk, J., Scholz, M.</i>	203
A rediscussion of sulfur abundances in Magellanic Clouds and Galactic H_{II} regions	
<i>Dennefeld, M., Stasińska, G.</i>	234
HCN J=1-0 observations in L673 and S235B: two different cases of hyperfine anomalies	
<i>Sandell, G., Höglund, B., Kishyakov, A.G.</i>	306
Six-centimeter H₂CO observations: envelopes of dark clouds	
<i>Vanden Bout, P.A., Snell, R.L., Wilson, T.L.</i>	337
Galaxies and Cosmology	
(LE) Can all quasars be gravitationally lensed Seyfert's nuclei?	
<i>Setti, G., Zamorani, G.</i>	L1
H_I line studies of galaxies. II. The 21-cm line width as an extragalactic distance indicator	
<i>Bottinelli, L., Gouguenheim, L., Paturel, G., de Vaucouleurs, G.</i>	4
The Hubble sequence of masses	
<i>Meijs, A.</i>	21
The orientation in space of spiral galaxies in the Local Supercluster	
<i>Kapranidis, S., Sullivan III, W.T.</i>	33
Perturbation of the magnitude-redshift relation in an inhomogeneous relativistic model. III. Redshift effect intrinsic to clusters of galaxies	
<i>Nottale, L.</i>	85
Calibrated B, V surface photometry of X-ray cD galaxies	
<i>Valentijn, E.A.</i>	123
The contribution of quasi-stellar objects to the cosmic X-ray background	
<i>Narlikar, J.V., Burbidge, G.</i>	154
NGC 6240: A unique interacting galaxy	
<i>Fried, J.W., Schulz, H.</i>	166
The low frequency variability of extragalactic radio sources: discussion of the properties	
<i>Fanti, C., Fanti, R., Ficarra, A., Gregorini, L., Mantovani, F., Padrielli, L.</i>	171
An optimal procedure for non-parametric elimination of observational cutoff bias in complete samples	
<i>Nicoll, J.F., Segal, I.E.</i>	180
The binary model for type I supernovae: theoretical rates	
<i>Greggio, L., Renzini, A.</i>	217
Erratum: The precision on the measure of q_0 using the gravitational lensing effect	
<i>Lacroix, G., Schneider, J.</i>	368
The Sun	
Two comments on the Sun's differential rotation	
<i>Schmidt, W., Stix, M.</i>	1
Self-consistent models of flare heated solar chromospheres	
<i>Fang, C., Hénoux, J.C.</i>	139
H₂ production in comets	
<i>Pirronello, V., Strazzulla, G., Foti, G.</i>	341
Planetary Systems	
Short-period geomagnetic, atmospheric and Earth-rotation variations	
<i>Djurović, D.</i>	26
The mass of the Oort cloud	
<i>Weissman, P.R.</i>	90
1980-81 observations of Miranda: new orbit and mass of Ariel and Umbriel	
<i>Veillet, C.</i>	211
How to maintain the spatial distribution of interplanetary dust	
<i>Leinert, C., Röser, S., Buitrago, J.</i>	345
Celestial Mechanics and Astrometry	
(RN) Optical positions of four benchmark radio sources	
<i>Geffert, M., Richtler, T.</i>	201
Physical Processes and Astrophysical Plasmas	
Coulomb bremsstrahlung and cyclotron emissivity in hot magnetized plasmas	
<i>Nagel, W., Ventura, J.</i>	66
Dielectronic satellite spectra of Mg XI with inner-shell and helium-like excitation rates. Application to solar observations	
<i>Faucher, P., Loulergue, M., Steenman-Clark, L., Volonté, S.</i>	147
Cosmic-ray shock acceleration in the presence of self-excited waves	
<i>Lagage, P.O., Cesarsky, C.J.</i>	223
(RN) Relativistic coherent curvature radiation	
<i>Benford, G., Buschauer, R.</i>	358
(RN) Helicity and α-effect of simple convection cells	
<i>Stix, M.</i>	363
Instruments, Data Processing, and Numerical Methods	
(RN) Reconstruction of a polarized brightness distribution by the maximum entropy method	
<i>Nityananda, R., Narayan, R.</i>	194
Abstracts of Articles Which Are Being Published in A. & A. Suppl. Ser. 51, No. 1	
Photographic surface photometry of the Milky Way. I. Data and reduction methods (text in German)	
<i>Schmidt-Kaler, T., Seidensticker, K.J., Pröll, H.J., Schlosser, W., Beck, R.</i>	206
Photographic surface photometry of the Milky Way. III. Photometry of the central area of the Galaxy in the ultraviolet (text in German)	
<i>Pröll, H.J., Schmidt-Kaler, T., Schlosser, W.</i>	207
Photoelectric photometry of the eclipsing binary NN Cephei	
<i>Güdür, N., Gülmén, Ö., Sezer, C., Sengonca, H.</i>	208
Positions of Asteroids (1981, Part II)	
<i>Debehogne, H., De Sanctis, G., Zappalà, V.</i>	208

Optical counterparts of radio sources from 5 GHz surveys: identification between RA=4 ^h and RA=14 ^h	208
<i>Meisenheimer, K., Röser, H.-J.</i>	
Flux density measurements of bright extragalactic sources at 36.8 GHz	208
<i>Salonen, E., Lehto, H., Urpo, S., Teerikorpi, P., Teräsranta, H., Haarala, S., Valtaoja, E., Tähtinen, L., Sillanpää, A., Tiuri, M., Valtonen, M.</i>	208
Photographic measures of visual double stars	208
<i>Pannunzio, R., Morbidelli, R.</i>	208
DQ Cephei, a Delta Scuti Star of constant variability	208
<i>Peña, J.H., Peniche, R., Margrave, T.E., Hobart, M.A., González, S.F.</i>	209
Normalized photoelectric observations for a three-dimensional representation of the light changes of RS Canum Venaticorum	209
<i>Lorenzi, L., Lattanzi, A., Siciliano, F.</i>	209
Positions, magnitudes and colors for stars in the globular cluster M15	209
<i>Buonanno, R., Buscema, G., Corsi, C.E., Iannicola, G., Fusi Pecci, F.</i>	209
Minor planet positions obtained at Cerro Calán Observatory during 1978-1980	209
<i>Wroblewski, H., Torres, C., Barros, S., Wischnjewsky, M.</i>	209
Seasonal light curves of TY UMa: observations and solutions	209
<i>Broglio, P., Conconi, P.</i>	209
A multicolour photometric analysis of the eclipsing binary VV Ori	209
<i>Giuricin, G., Mardirossian, F., Mezzetti, M., Chambliss, C.R.</i>	209
Internal motions in planetary nebulae: NGC 7354, I 289 and Hu 1-2	210
<i>Sabbadin, F., Bianchini, A., Hamzaoglu, E.</i>	210
The rotation measures of radio sources in selected celestial zones - the Perseus Arm Window	210
<i>Vallée, J.P.</i>	210
New observations of positive high velocity clouds	210
<i>Morras, R., Bajaja, E.</i>	210
The color-magnitude diagram for stars in the central part of the globular cluster NGC 7089 (M 2)	210
<i>Aurière, M., Cordon, J.-P.</i>	210
A study of visual double stars with early type primaries. I. Spectroscopic results	210
<i>Gahm, G.F., Ahlin, P., Lindroos, K.P.</i>	210
A study of visual double stars with early type primaries. II. Photometric results	210
<i>Lindroos, K.P.</i>	210